

Title (en)

Selection of a reference image in interventional vascular radiology

Title (de)

Auswahl eines Referenzbildes in interventioneller vaskulärer Radiologie

Title (fr)

Sélection d'une image de référence dans la radiologie interventionnelle vasculaire

Publication

**EP 2662830 A1 20131113 (EN)**

Application

**EP 13163985 A 20130416**

Priority

JP 2012106311 A 20120507

Abstract (en)

An image processing apparatus includes: subtraction means that generates subtraction images constituted by a plurality of frames from X-ray images of an object acquired before and after injecting a radiopaque dye; evaluation means that calculates evaluation values indicating states of the injection of the radiopaque dye for the frames constituting the subtraction images; and selection means that selects at least one of the frames constituting the subtraction images using the evaluation values and outputs the selected frame as a reference image.

IPC 8 full level

**A61B 6/00** (2006.01); **G06T 7/00** (2006.01)

CPC (source: EP US)

**A61B 6/5241** (2013.01 - EP US); **G06T 7/0012** (2013.01 - EP US); **G06T 7/0014** (2013.01 - US); **A61B 6/481** (2013.01 - EP US); **A61B 6/504** (2013.01 - EP US); **G06T 2207/10121** (2013.01 - EP US); **G06T 2207/30021** (2013.01 - EP US); **G06T 2207/30101** (2013.01 - EP US); **G06T 2207/30168** (2013.01 - EP US)

Citation (applicant)

JP H01221142 A 19890904 - SHIMADZU CORP

Citation (search report)

- [IA] US 2005089143 A1 20050428 - NAKANO SHINICHI [JP], et al
- [IA] ROSE JOHNSON ET AL: "Exploring the potential for touchless interaction in image-guided interventional radiology", CHI 2011, 7 May 2011 (2011-05-07), pages 3323 - 3332, XP055073761, ISBN: 978-1-45-030228-9, DOI: 10.1145/1978942.1979436
- [A] "SPECTUM E-5000 Cardiac Catheterization Lab", WWW.ARCHIVE.ORG, 13 February 2011 (2011-02-13), pages 1 - 2, XP055073858, Retrieved from the Internet <URL:http://web.archive.org/web/20110213065536/http://www.emdmedical.com/i\_pro\_cardiology.html> [retrieved on 20130801]

Cited by

US10499864B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 2662830 A1 20131113**; **EP 2662830 B1 20181010**; CN 103385692 A 20131113; CN 103385692 B 20150902; JP 2013233227 A 20131121; JP 6021420 B2 20161109; US 2013294674 A1 20131107; US 9396535 B2 20160719

DOCDB simple family (application)

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